

CLAIMS

1. An adhesive article comprising:
a base layer having a first surface and a second surface; and
a coating layer formed on the first surface of the base layer, where
the coating layer comprises: (A) at least one adhesive resin and (B) at least one
hydrophilic polymer, at least one surfactant or a combination of at least one
hydrophilic polymer and at least one surfactant, with the proviso that when (B) is
only a surfactant, then the coating layer contains less than about 40% by weight
polyurethane.
2. The article of claim 1, wherein the base layer is formed from a
polymer film selected from polycarbonate films, polyacryl films, styrenic polymer
films, polyolefin films or polyester films.
3. The article of claim 1, wherein the base layer is a polyester film.
4. The article of claim 3, wherein the base layer is heat stabilized.
5. The article of claim 1, wherein the base layer has a thickness in the
range of about 0.5 mils to about 10 mils.
6. The article of claim 1, wherein the adhesive resin is selected from
ethylene vinyl acetates, polyvinyl acetate ethylene emulsions, polyvinyl acetate
acrylics, polyvinyl acetates, vinyl acrylics or ethylene vinyl chloride.

7. The article of claim 1, wherein the adhesive resin is ethylene vinyl acetate.

8. The article of claim 1, wherein the coating layer comprises (B) is at least one hydrophilic polymer.

9. The article of claim 1, wherein the hydrophilic polymer is selected from cellulosic polymers, polyvinyl alcohol, polyvinyl pyrrolidone, dextran, nylons, polyamides, hydroxyethyl methacrylate, starches and gelatins.

10. The article of claim 1, wherein (B) is at least one adhesive resin and at least one surfactant.

11. The article of claim 1, wherein the surfactant is selected from one or more anionic surfactants, cationic surfactants, non-ionic surfactants or mixtures thereof.

12. The article of claim 1, wherein the surfactant is selected from one or more anionic surfactants.

13. The article of claim 1, wherein (B) is a combination of at least one hydrophilic polymer and at least one surfactant.

14. The article of claim 13, wherein the coating layer comprises from about 10% to about 90% by weight adhesive resin, from about 10% to about 90% by weight hydrophilic polymer, and from about 0.1% to about 10% by weight surfactant.

15. The article of claim 1 wherein the coating composition further comprises a defoamer.

16. The article of claim 1, wherein the coat weight of the coating layer is in the range of about 15 grams per square meter to about 60 grams per square meter.

17. The article of claim 1, wherein the coating layer is free of polyurethane.

18. An adhesive article comprising:
a base layer having a first surface and a second surface; and
a coating layer formed on the first surface of the base layer, where the coating layer comprising (A) about 10% to about 90% by weight of at least one adhesive resin and (B) about 10% to about 90% by weight of at least one hydrophilic polymer.

19. The article of claim 18, wherein the base layer is formed from a polymer film selected from polycarbonate films, polyacryl films, styrenic polymer films, polyolefin films and polyester films.

20. The article of claim 18, wherein the base layer is a polyester film.

21. The article of claim 18, wherein the base layer is heat stabilized.

22. The article of claim 18 wherein the base layer has a thickness in the range of about 0.5 mils to about 10 mils.

23. The article of claim 18, wherein the adhesive resin is selected from ethylene vinyl acetates, polyvinyl acetate ethylene emulsions, polyvinyl acetate acrylics, polyvinyl acetates, vinyl acrylics and ethylene vinyl chloride.

24. The article of claim 18, wherein the adhesive resin is ethylene vinyl acetate.

25. The article of claim 18, wherein the hydrophilic polymer is selected from cellulosic polymers, polyvinyl alcohol, polyvinyl pyrrolidone, dextran, nylons, polyamides, hydroxyethyl methacrylate, starches and gelatins.

26. The article of claim 18, wherein the hydrophilic layer further comprises (c) about 0.1% to about 5% by weight of at least one surfactant.

27. The article of claim 18 wherein the coating layer further comprises a defoamer.

28. The article of claim 27, wherein the surfactant is selected from one or more anionic surfactants, cationic surfactants, non-ionic surfactants or mixtures thereof.

29. The article of claim 27, wherein the surfactant is selected from one or more anionic surfactants.

30. The article of claim 18, wherein the coat weight of the coating layer is in the range of about 15 grams per square meter to about 60 grams per square meter.

31. An adhesive article comprising:
a polyester base layer having a first surface and a second surface;
and
a coating layer formed on the first surface of the base layer,
where the coating layer comprises ethylene vinyl acetate and polyvinyl alcohol wherein the coating layer contains less than about 40% by weight of polyurethane.

32. The article of claim 31, wherein the base layer is poly(ethylene terephthalate).

33. A method of making an adhesive article comprising the steps of:
(A) providing a base layer having a first and second surface; and
(B) forming at least one coating layer on at least one surface of a base layer,
wherein the coating layer comprises: (A) at least one adhesive resin and (B) at least one hydrophilic polymer, at least one surfactant or a combination of at least one hydrophilic polymer and at least one surfactant, with the proviso that when (B) is only a surfactant, then the coating layer contains less than about 40% by weight polyurethane.

34. An article for fluid transport comprising:
a substrate having at least one fluid transport structure;
at least one adhesive article located in an area near the at least one fluid transport structure, the adhesive article comprising:
a base layer having a first and second surface; and
at least one coating layer on at least one surface of a base

layer, the coating layer comprising: (A) at least one adhesive resin and (B) at least one hydrophilic polymer, at least one surfactant or a combination of at least one hydrophilic polymer and at least one surfactant, with the proviso that when (B) is only a surfactant, then the coating layer contains less than about 40% by weight polyurethane.

35. The article of claim 34, wherein the coating layer comprises at least one adhesive resin and at least one hydrophilic polymer.

36. The article of claim 35, wherein the coating layer comprises from about 30% to about 99% by weight adhesive resin and from about 1% to about 70% by weight hydrophilic polymer.

37. The article of claim 34, wherein the coating layer comprises at least one adhesive resin and at least one surfactant.

38. The article of claim 37, wherein the coating layer comprises from about 70% to about 99.9% by weight adhesive resin and from about 0.1% to about 30% by weight surfactant.

39. The article of claim 34, wherein the coating layer comprises at least one adhesive resin, at least one hydrophilic polymer and at least one surfactant.

40. The article of claim 41, wherein the coating layer comprises from about 10% to about 90% by weight adhesive resin, from about 10% to about 90% by weight hydrophilic polymer, and from about 0.1% to about 10% by weight surfactant.

41. A biosensor comprising:
a base plate having an electrode system;
a sample space formed on the base plate, the sample space being formed in such a manner as to enable the input of a sample;
a reaction layer located in the sample space; and
a cover for covering the top portion of the sample space, the cover being formed from an adhesive article, wherein the adhesive article comprises:
a base layer having a first and second surface; and
at least one coating layer on at least one surface of a base layer, the coating layer comprising: (A) at least one adhesive resin and (B) at least one hydrophilic polymer, at least one surfactant or a combination of at least one hydrophilic polymer and at least one surfactant, with the proviso that when (B) is only a surfactant, then the coating layer contains less than about 40% by weight polyurethane.

42. The biosensor of claim 41, wherein the coating layer comprises at least one adhesive resin and at least one hydrophilic polymer.

43. The biosensor of claim 42, wherein the coating layer comprises from about 30% to about 99% by weight adhesive resin and from about 1% to about 70% by weight hydrophilic polymer.

44. The biosensor of claim 41, wherein the coating layer comprises at least one adhesive resin and at least one surfactant.

45. The biosensor of claim 44, wherein the coating layer comprises from about 70% to about 99.9% by weight adhesive resin and from about 0.1% to about 30% by weight surfactant.

46. The biosensor of claim 41, wherein the coating layer comprises at least one adhesive resin, at least one hydrophilic polymer and at least one surfactant.

47. The biosensor of claim 46, wherein the coating layer comprises from about 10% to about 90% by weight adhesive resin, from about 10% to about 90% by weight hydrophilic polymer, and from about 0.1% to about 10% by weight surfactant.

48. A method of making at least one area more hydrophilic comprising the steps of:

(A) forming an adhesive article comprising a base layer having a first and second surface and at least one coating layer on at least one surface of a base layer, the coating layer comprising: (A) at least one adhesive resin and (B) at least one hydrophilic polymer, at least one surfactant or a combination of at least one hydrophilic polymer and at least one surfactant, with the proviso that when (B) is only a surfactant, then the coating layer contains less than about 40% by weight polyurethane, and

(B) placing the at least one adhesive article in a suitable location to increase the hydrophilic properties in the surrounding area.

49. A method of making at least one area more hydrophilic comprising the steps of:

(A) providing a substrate having at least one fluid transport area;

(B) placing at least one adhesive article over the at least one fluid transport area, the at least one adhesive article comprising a base layer having a first and second surface and at least one coating layer on at least one surface of a base layer, the coating layer comprising: (A) at least one adhesive

resin and (B) at least one hydrophilic polymer, at least one surfactant or a combination of at least one hydrophilic polymer and at least one surfactant, with the proviso that when (B) is only a surfactant, then the coating layer contains less than about 40% by weight polyurethane.

50. The method of claim 49, wherein the coating layer comprises at least one adhesive resin and at least one hydrophilic polymer.

51. The method of claim 50, wherein the coating layer comprises from about 30% to about 99% by weight adhesive resin and from about 1% to about 70% by weight hydrophilic polymer.

52. The method of claim 50, wherein the coating layer comprises at least one adhesive resin and at least one surfactant.